

**XTZ<sub>1</sub>=95.04, 100.0, 108.89**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 0.800$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart D65,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 507.575 82.74 60.45 54.29 0.385 0.3434 596 491  
 Y 493.775 86.13 97.18 57.92 0.357 0.4028 570 463  
 G 494.567 56.53 78.24 57.9 0.2927 0.4064 535 536  
 C 380.567 65.3 81.11 108.92 0.2537 0.3176 499 596  
 M 380.490 56.62 82.65 105.57 0.2629 0.2662 463 570  
 W 507.493 80.35 71.19 105.99 0.3272 0.2725 535 536  
 W 380.775 95.04 100.00 108.90 0.3127 0.3239 100%  
 N<sub>1</sub> 380.775 47.52 50.0 54.44 0.3127 0.329 50  
 Z<sub>1</sub> 380.775 17.1 18.0 19.6 0.3127 0.329 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart D65  
 $Y_w=100, Y_n=50$

**XTZ<sub>2</sub>=96.42, 100.0, 82.49**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 1.000$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart D50,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 507.575 82.74 70.07 41.35 0.42 0.3646 596 491  
 Y 496.775 89.81 97.06 43.46 0.3899 0.4322 538 468  
 G 496.570 57.4 77.09 43.43 0.3262 0.4322 538 536  
 C 380.570 64.05 80.07 82.51 0.2826 0.3532 491 596  
 M 380.490 56.62 82.65 105.57 0.2629 0.2662 468 570  
 W 570.496 87.73 73.05 80.43 0.3627 0.3033 538 538  
 W 380.775 96.42 100.00 82.49 0.3457 0.3585 100%  
 N<sub>1</sub> 380.775 48.21 50.0 54.44 0.3457 0.3585 100%  
 Z<sub>1</sub> 380.775 17.35 18.0 14.84 0.3457 0.3585 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart D50  
 $Y_w=100, Y_n=50$

**BTGP1-1A**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 1.300$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart P40,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 572.775 82.73 70.25 52.92 0.4074 0.5558 596 491  
 Y 498.775 95.81 97.72 34.43 0.4202 0.4286 576 468  
 G 498.573 60.75 77.17 34.41 0.3525 0.4472 540 546  
 C 380.573 65.92 79.49 64.69 0.3137 0.3783 493 600  
 M 380.498 57.52 82.52 82.49 0.2622 0.3608 468 576  
 W 571.498 90.79 72.97 67.17 0.4008 0.2222 540 540  
 W 380.775 100.00 100.00 64.68 0.3799 0.3764 100%  
 N<sub>1</sub> 380.775 50.40 50.0 32.34 0.3799 0.3764 50  
 Z<sub>1</sub> 380.775 18.16 18.0 11.64 0.3799 0.3764 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart P40  
 $Y_w=100, Y_n=50$

**BTGP1-2A**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 2.500$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart A00,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 497.575 94.59 71.58 50.84 0.3881 0.5881 600 499  
 Y 504.775 107.21804 18.99 0.4781 0.4371 581 474  
 G 504.579 61.7 76.55 18.97 0.4133 0.4047 547 547  
 C 380.579 70.0 78.56 35.57 0.3801 0.4266 499 605  
 M 380.498 57.52 82.51 34.43 0.4001 0.3614 474 587  
 W 579.504 92.67 73.59 34.43 0.4746 0.3578 547 547  
 W 380.775 109.899 89.35 64.45 0.4475 0.4074 100%  
 N<sub>1</sub> 380.775 54.92 49.9 17.79 0.4475 0.4074 50  
 Z<sub>1</sub> 380.775 19.77 19.0 6.4 0.4475 0.4074 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart A00  
 $Y_w=100, Y_n=50$

**BTGP1-3A**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 0.900$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart E00,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 522.775 82.73 70.25 52.92 0.4074 0.5558 596 491  
 Y 494.775 91.73 97.45 53.1 0.3786 0.4022 573 463  
 G 494.570 59.04 77.29 53.07 0.3117 0.408 536 536  
 C 380.570 65.75 79.88 100.02 0.2724 0.323 499 596  
 M 380.498 58.41 82.60 97.05 0.2606 0.2531 463 573  
 W 570.494 91.73 72.97 67.17 0.3791 0.2794 536 536  
 W 380.775 100.00 100.00 33.33 0.3333 0.333 100%  
 N<sub>1</sub> 380.775 50.0 50.0 33.33 0.3333 0.333 50  
 Z<sub>1</sub> 380.775 18.0 18.0 33.33 0.3333 0.333 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart E00  
 $Y_w=100, Y_n=50$

**BTGP1-4A**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 0.700$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart C00,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 507.575 79.73 60.45 54.29 0.381 0.3614 596 491  
 Y 492.775 88.31 97.06 62.09 0.3559 0.3912 571 463  
 G 492.567 57.75 77.46 62.06 0.2918 0.3914 535 535  
 C 380.567 65.75 80.45 118.25 0.2537 0.3021 487 596  
 M 380.492 58.94 83.08 114.82 0.2629 0.2643 463 571  
 W 570.492 91.73 72.97 67.17 0.4144 0.323 0.2623 535 535  
 W 380.775 98.07 100.00 112.29 0.3161 0.3161 100%  
 N<sub>1</sub> 380.775 49.03 50.0 59.11 0.3161 0.3161 50  
 Z<sub>1</sub> 380.775 17.65 18.0 21.26 0.3161 0.3161 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart C00  
 $Y_w=100, Y_n=50$

**BTGP1-5A**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 1.000$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart P00,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 572.775 85.39 70.37 40.63 0.4533 0.579 596 491  
 Y 570.494 91.73 79.17 67.17 0.3722 0.299 541 541  
 G 496.572 60.99 77.01 42.54 0.3378 0.4265 541 541  
 C 380.572 65.75 79.77 81.07 0.296 0.491 491 600  
 M 380.496 57.8 82.86 79.14 0.3045 0.2784 467 575  
 W 570.496 92.26 73.17 67.17 0.3722 0.299 541 541  
 W 380.775 102.00 100.00 81.06 0.3604 0.3333 100%  
 N<sub>1</sub> 380.775 51.03 50.0 40.53 0.3604 0.3333 50  
 Z<sub>1</sub> 380.775 18.37 18.0 14.59 0.3604 0.3333 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart P00  
 $Y_w=100, Y_n=50$

**BTGP1-6A**  $L^*=60 \log\{f(Y_{An})\}$   $Y_{An}=[Y-50]/50$

$A_1 = 2.5(a_1 - a_2) Y$   
 $B_1 = 2.5 B_2 (b_2 - b_2) Y$   
 $a_1 = a_{20} [(x - x_c) / y]$   
 $b_1 = b_{20} [z / y]$   
 $a_{20} = 1, b_{20} = -0.4$   
 $x_c = 0.110, B_2 = 0.700$   
 $C_{AB} = [A_1^2 + B_1^2]^{1/2}$   
**6 Oswald-Farben (o)**

von maximalem (m)  $C_{AB}$  im linearen Farbraum  $(C_{AB,2} Y)$

Lichtart Q00,  $Y_w=100, Y_n=50$

Name Bereich  $Y_1$   $Y_2$   $Z_1$   $Z_2$   $Y_1^2$   $Y_2^2$   $Z_1^2$   $Z_2^2$   
 R 507.575 79.73 60.45 54.29 0.381 0.3614 596 491  
 Y 492.775 99.99 97.23 63.08 0.3543 0.3915 570 462  
 G 492.567 57.74 77.88 63.08 0.29 0.392 535 535  
 C 380.567 65.75 80.4 118.80 0.2527 0.3017 487 596  
 M 380.492 59.04 82.91 115.52 0.2599 0.2326 462 570  
 W 570.492 92.26 73.16 67.17 0.3726 0.299 0.2608 535 535  
 W 380.775 97.93 100.00 118.95 0.3009 0.3155 100%  
 N<sub>1</sub> 380.775 48.96 50.0 59.47 0.3009 0.3155 50  
 Z<sub>1</sub> 380.775 17.62 18.0 21.41 0.3009 0.3155 18%

$f(Y_{An}) = \pm[1+10|Y_{An}|^3]$

n nähert sich 1 für:  
 1. abnehmendem Kontrast C  
 2. aneinandergrenzende / separate Farben.

Parameter:  
 Y & Name  
 Lichtart Q00  
 $Y_w=100, Y_n=50$

**BTGP1-7A**

**BTGP1-8A**